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Modal Harmonies in Modern Music

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MODAL HARMONIES IN MODERN MUSIC

BY

OLGA FERN MOSER

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THESIS

FOR THE

DEGREE OF BACHELOR OF MUSIC

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SCHOOL OF MUSIC

UNIVERSITY OF ILLINOIS

1913



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Music School  
~~THE GRADUATE SCHOOL~~

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I HEREBY RECOMMEND THAT THE THESIS PREPARED UNDER MY SUPERVISION BY

Olga Fern Moser

ENTITLED Modal harmonies in modern music

BE ACCEPTED AS FULFILLING THIS PART OF THE REQUIREMENTS FOR THE

DEGREE OF Bachelor of music

In Charge of Major Work

Head of Department

~~Recommendation concurred in:~~

Committee

on

Final Examination

48098





## MODAL HARMONIES

in

## MODERN MUSIC

(Investigation confined to works of Brahms.)

The Grecian idea of "Modes", such as the Dorian, Phrygian, Lydian, etc. refers to pitch, and grouping, and not strictly speaking, tonality. The history of these modes underlies to a considerable extent the history of the evolution of tonality. Tonality may be defined as the musical character belonging to a mode, or a key by reason of the mutual relation of the notes employed. It is determined chiefly by the relation of the several notes of the mode, or key to the two fixed points of the "Dominant", and the "Final", or Tonoι. The Octave-system (Harmoniai) is the most valuable of the Greek grouping systems. The monochord, a single vibrating string, which, being subdivided into simple mathematical ratios, gives the principal notes of the scale that serves as a basis of all musical theory. The first interval to be established is the octave, which is sounded by one half the vibrating string; the fifth will similarly be given by two thirds of the string, and the fourth by three fourths of it. A tone is the difference between the fourth, and the fifth, that is to say, it is represented by its fraction, or one twelfth. The immediate result of the theory of the monochord is the founding of an Octave-system, the terminology of which is taken from the Cithara, or Lyra. The interval from the Nete to the Hypate, that is, the highest note to the



lowest, is an octave; from the Paramese to the Hypate is a fifth, or a pentachord; from the Nete to the Paramese, or from the Mese to the Hypate is a fourth, or tetrachord. The Octave-system then is made up thus:

	(	Nete	'lit. lowest')	our highest note.
Tetrachord	(	T	(	
	(	Paranete	i.e.	'next to Nete'.)
	(	Trite	i.e.	'third string'.)
	(	S	(	
		Paramese	i.e.	'next to Mese'.)
Tetrachord	(	Mese	i.e.	'middle string'.)
	(	T	(	
	(	Lichanos	i.e.	'forefinger string'.)
	(	T	(	
		Parhypate	i.e.	'next to Hypate'.)
	(	S	(	
		Hypate	i.e.	'highest') <sup>x</sup> our lowest note.

Note: T--Major Second; S--Minor Second. ("x" referring to the position of the instrument.)

The Tonoi were replaced by the Octave-system, or Harmoniai. They were formed by allowing the Octave-system to be reckoned from some particular note, and were accordingly designated by the terms Dorian, Lydian, Phrygian, etc. pitch. Aristoxenus, a pupil of Aristotle, gave a definite pitch to each Tonoi. During the second century A.D. interest was transformed to the Seven Octaves, which represented different species. Ptolmey reduced the Tonoi to seven in number, equating them to Seven Species of Octave, and using transposition as a way of determining several species at a uniform pitch. He chromatically modified certain tones of the scale in such a manner that the transposed mode is made to conform with its original in much the same manner as a transposition is made in modern music in changing from one key

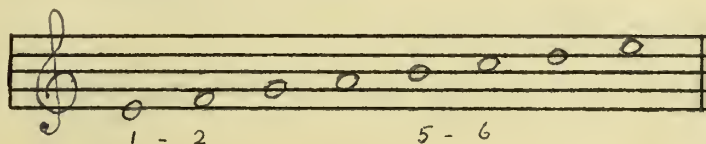




to another. The following are the modes of Ptolmey.

		"x"	Central tone or Mese
1. (highest) Mixolydian	(A to a)	( $\sharp$ ) <sup>1</sup>	d
2. Lydian	(G to g)	( $\sharp$ ) <sup>3</sup>	c
3. Phrygian	(F to f)	( $\sharp$ ) <sup>5</sup>	b
4. Dorian	(E to e)	( ) <sup>0</sup>	a
5. Hypolydian	(D to d)	( $\sharp$ ) <sup>2</sup>	G
6. Hypophrygian	(C to c)	( $\sharp$ ) <sup>4</sup>	F
7. Hypodorian	(B to b)	( $\flat$ ) <sup>1</sup>	E

"x" For convenience modern chromatic signs are used instead of the modified chromatic characters of Greek notation. A Proslambanomenos, or disjunct note was added to make up the octave. Each mode is formed of a section of the Perfect System, or diatonic notes of the pianoforte, as:

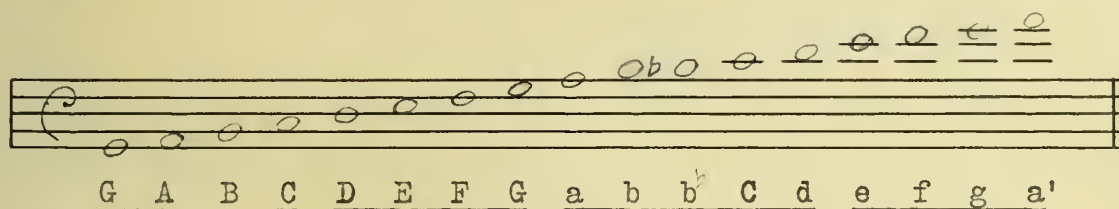


The main results of these changes are: (1). The Seven Species of Octaves became seven practical working modes, and afforded a different Sequence of intervals. The followers of Ptolmey added a Hypermixolydian Mode, thus making eight. (2). The Mese became a regular Dominant of the Mode. (3). The Modes ranged a note lower than previously, due to the Proslambanomenos.

During the period of the Early Christian Church there were two classes of music: the Responsorial, and the Antiphonal. The Responsorial is the older. From the stand-point of tonality the Responsorial is characterized by the prominence of the Dominant, whereas in the Antiphonal the Final is of greater import-



ance. The practices of the Early Christian Church musicians were brought from the East during the fourth century. By the ninth century the Greek Perfect System was established as follows:



The Greek Perfect System had a range ample for all vocal purposes. Occasionally it was extended one note downward, and several notes upward. The chromatic lowering of a note gave opportunity not only for transposition, but also for obtaining some variety by the use of an accidental, plus other chromatic effects. The Final was used conspicuously, while the Dominant had almost entirely disappeared. The principal contribution of this period was to give to the musical world a systemitized scale.

The Frankish writers of the tenth, or eleventh Century used the Dominant of the third mode, i.e. Phrygian, by changing it from the dubious note "b" to "c". It was not universally adopted. The change in the use of the antiphones and responds was the main difficulty that the writers of this period had to face. A custom had arisen of repeating, after the verse, or verses, only the latter part of the respond itself, instead of the whole. The antiphone was similarly shortened by using its repetition only once or twice during the psalm. After this change took place the end of the antiphone and its Final became far more important than its opening. In many cases sequence-melodies were written in two registers; their compass, therefore, exceeded the normal





limits assigned to any one mode by the theorists of the tenth to twelfth centuries; it then became usual to regard them as being both in the authentic and in the corresponding plagal mode. This was the last modification of any great moment that plain-song brought to the theory of the modes. The modifications, which appeared between the twelfth and sixteenth centuries, were due principally to two causes; (1) The invasion of popular music and the spirit of folk song; (2) The growth of harmonized and measured music. The Polyphonic idea arose in the twelfth to the fourteenth centuries. Melodies were reduced to regular rhythmic form, with such accentual and durational values of the tones that their motions could be accurately measured and mutually adjusted. Ways were discovered in which melodies could be simultaneously combined so as to be concordant, or if discordant, still satisfactory and effective. The tonality that was congenial to folk song in France especially was uncongenial to the classical plain-song, that is, the use of the chromatically lowered "b" in the Lydian and Hypolydian modes. Without this alteration the interval would have been a tritone; with it the mode had a leading tone. This tendency was further emphasized by the growing art of harmony. As the perfect close was invented and became the centre of the harmonic art, the leading note became a necessity, the "F" or fifth mode with "b<sup>b</sup>", or the "C" or sixth mode without it, became favourites; other modes had to submit to chromatic alteration in the interests of harmony. The period of the rise of harmony is thus the period of decline of the old tonality, and the modal system. In the closing stages of the deterioration of the Ecclesiastical Modes, what is technically



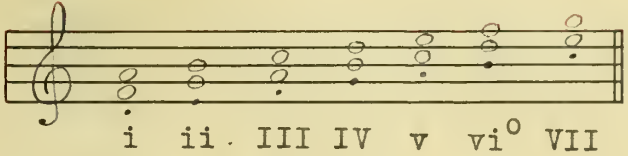
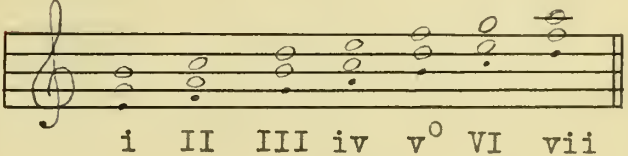
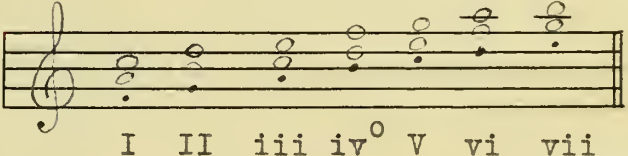
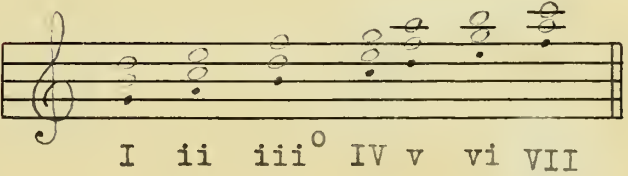
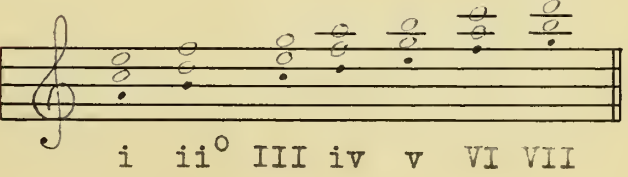
known as the "Polyphonic School", an attempt was made to revive the proposal to reckon twelve (or even fourteen) modes. The Renaissance sent the musicians back afresh to the old writers on musical theory, but the attempts of Gafori, and his followers, to combine the old and new were as little successful in the sixteenth century, as Boethius and his contemporary theorists had been in the ninth; they added nothing but further elements of confusion to the theory of modes. The theorists of the mediaeval days assigned to each mode the following epithets:

				Range.	Fin.	Dom.
Authentic	1st.	Modus Gravis	-grave	D-D	D	A
Plagal	2nd.	" Tristis	-sad	A-A	D	F
Authentic	3rd.	" Mysticus	-mystical	E-E	E	C
Plagal	4th.	" Harmonicus	-harmonious	B-B	E	A
Authentic	5th.	" Laetus	-joyful	F-F	F	C
Plagal	6th.	" Devotus	-devout	C-C	F	A
Authentic	7th.	" Angelicus	-angelic	G-G	G	D
Plagal	8th.	" Perfectus	-perfect	D-D	G	C

The chords formed on the different degrees of the scale, as well as their character (Roman Numerals), in the (four) Ecclesiastical, and (one) Mediaeval Modes are shown in the following illustrations:





Ecclesiastical Modes	( Dorian	
	( Phrygian	
	( Lydian	
	( Mixo-lydian	
Mediaeval Mode	( Aeolian	

The following table illustrates the points of coincidence and dissimilarity between the triads obtainable from the Ecclesiastical Modes and the Major and Minor Scales. The table includes also a summary of those triads which differ from the usual triads formed on the various degrees of the Major and Minor Scales.



## Major Scale

## Minor Scale

Major Scale							Ecclesiastical Modes	Minor Scale						
I	ii	iii	IV	V	vi	vii°		i	ii°	III <sup>+</sup>	iv	V	VI	vii°
i		III		v	vi°	VII	Dorian		ii	III	IV	v	vi°	VII
i	II	III	iv	v°	VI	vii	Phrygian		II	III		v°		vii
	II		iv°			vii	Lydian	I	II	iii	iv°		vi	vii
		iii		v		VII	Mixo-lydian	I	ii	iii°	IV	v	vi	VII
i	ii°	III	iv	v	VI	VII	Aeolian			III		v		VII
(i)	II	III	iv	v	VI	VII	(Summary of )	(I)	II	III	IV	v	vi	VII
							(Modal Har-							
(ii°)	(iii)	(iv)	(v)	(vi)	vii		(monies to )		ii	iii	(iv°)	(v°)	(vi°)	vii
							(be used in )							
							(the investi-		(iii°)					
							(gation. )							

Those within parenthesis are excluded from investigation.





The following references show instances of the use of the Modal Harmonies to be found on degrees of the Major Scale in the place of the triads expected upon those degrees.

II Ein deutsches Requiem	Op. 45	Measure 24	(G B <sup>♯</sup> D-Key F)
II Ein deutsches Requiem	Op. 45	" 44	(G B <sup>♯</sup> D-Key F)
III Triumphlied	Op. 55	" 38	(F A <sup>♯</sup> C-Key D)
III Songs by Brahms	Op. 46 No. 4	" 6	(E G <sup>♯</sup> B-Key C)
iv Abendständchen	Op. 42 No. 1	" 7	(G B <sup>♯</sup> D-Key D)
iv Songs by Brahms	Op. 49 No. 2	" 19	(A C <sup>♯</sup> E-Key E)
v Song of Fate	Op. 54	" 70	(B <sup>♯</sup> D <sup>♯</sup> F-Key E)
v Ein deutsches Requiem	Op. 45 (Allegro non troppo)	" 6	(F A <sup>♯</sup> C-Key B)
VI Symphony No. 4. Second Movement	"	3	(C <sup>♯</sup> E G-Phrygian Mode)
VI An den Mond	"	40	(D F A-Key F)
vii Brahms' Songs	Op. 63 No.2	" 7	(G B <sup>♯</sup> D-Key A)
vii Ein deutsches Requiem	Op. 45	" 21	(E G B <sup>♯</sup> -Key F)
VII Meine Liebe ist grün.	"	5	(E G <sup>♯</sup> B-Key F)
VII Ein deutsches Requiem	Op. 45 (Poco Sostentuo)"	2	(A C <sup>♯</sup> E-Key B)



The following references show instances of the use of the Modal Harmonies to be found on degrees of the Minor Scale in the place of the triads expected upon those degrees.

ii	Treue Liebe		Measure	4 (g <sup>♭</sup> b <sup>♭</sup> d-Key f)
II	Canons	Op. 113 No. 1	"	7 (f a c-Phrygian)
II	Song of Fate	Op. 54	"	297 (d f a-Key c)
iii <sup>x</sup>				
III	Darthula's Grabesgesang		"	25 (b <sup>♭</sup> d f-Key g)
III	Concert	Op. 15	"	35 (f a c <sup>♯</sup> -Key d)
IV <sup>x</sup>				
v	Abendständchen	Op. 42 No.1	"	5 (f <sup>♯</sup> a c-Key g)
v	Darthula's Grabesgesang		"	25 (d f <sup>♯</sup> a-Key g)
vi <sup>x</sup>				
vii	Ein deutsches Requiem	Op. 45	"	101 (a <sup>♭</sup> c <sup>♭</sup> e <sup>♭</sup> -Key b)
VII	Songs by Brahms	Op. 7 No.5	"	1 (e <sup>♭</sup> g b <sup>♭</sup> -Key f)
VII	Abendständchen	Op. 42 No.1	"	25 (f <sup>♯</sup> a c-Key g)
"x" No instance found.				









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